

20060918.ba v03_n956.bam.20060918

>From ???@??? Mon Sep 18 18:47:35 2006 -0500
Date: Mon, 18 Sep 2006 23:46:17 GMT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3956
Message-Id: <20060918234618.706E51B7F08@srvr1.theporch.com>

BOATANCHORS Digest 3956

Topics covered in this issue include:

- 1) ARRL Yearly Volumes
by wsno19@mindspring.com
- 2) Re: manuals
by ail0@att.net
- 3) Power Supply Problem
by AA5QT@aol.com
- 4) Re: Power Supply Problem
by Scott Robinson <spr@earthlink.net>
- 5) Re: Power Supply Problem
by "Tom Rauch" <w8ji@contesting.com>
- 6) Re: Power Supply Problem
by "Herbert M. Rosenthal" <herbrose@comcast.net>
- 7) Heath kit building
by <jsehrring@siouxvalley.net>
- 8) Re: Power Supply Problem
by wb3fau@att.net
- 9) Repro Military Stamped Label Plates
by "stanleybadams" <stanleybadams@yahoo.com>
- 10) Re: Power Supply Problem
by "Brian A Clarke" <brianclarke01@optusnet.com.au>
- 11) Re: Power Supply Problem
by "Tom Rauch" <w8ji@contesting.com>
- 12) Re: Heath kit building
by "Edward J White" <wa3bzt@verizon.net>
- 13) AN/UYK-3 Computer - Research Successful
by Jerry Proc <jerry7proc@yahoo.com>
- 14) Re: Power Supply Problem
by "Arden Allen" <gumbear@pacbell.net>
- 15) Re: Power Supply Problem
by "Arden Allen" <gumbear@pacbell.net>
- 16) Re: Power Supply Problem
by Rhett George <rtg@ee.duke.edu>
- 17) Re: Power Supply Problem
by "Arden Allen" <gumbear@pacbell.net>
- 18) Rectifiers (was: power supply)

- by "Rhett T. George" <rtg@ee.duke.edu>
- 19) Re: Power Supply Problem
by wb3fau@att.net
- 20) Re: Power Supply Problem
by ail0@att.net
- 21) NC303 question
by "JAMES HANLON" <knjhanlon@msn.com>
- 22) Re: Power Supply Problem
by "Marty Reynolds' debris field" <polepeeg@aa4rm.ba-watch.org>
- 23) scr522 vs T-1196 'n stuff
by "Marty Reynolds' debris field" <polepeeg@aa4rm.ba-watch.org>
- 24) Re: Power Supply Problem
by "Tom Rauch" <w8ji@contesting.com>

Message-ID: <6934659.1158340546921.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>
Date: Fri, 15 Sep 2006 13:15:46 -0400 (GMT-04:00)
From: wsno19@mindspring.com
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ARRL Yearly Volumes
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

For sale to new owners! I have bound volumes of QST from year 1929 through 1974 (last of old format) These are for sale by the year or by the lot. They are in wonderful condition. I am located in N.C. close to Spartanburg. SC. (Tryon) These are open to offer and I shall evaluate the offers for the best ones. I can deliver in the regional area I live in if you pay the gasmileage. I suggest "sensible" offers. These books are too precious to be torn apart! Thank you. Tony Grogan W4SOE.

From: ail0@att.net
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: manuals
Date: Fri, 15 Sep 2006 18:27:07 +0000
Message-Id: <091520061827.2577.450AF07A000D925E00000A112160280651CF04070E@att.net>

----- Original message -----
From: "phil" <signetics@netzero.com>
> I have been trying to reach A G Tannenbaum for a manual, My e-mails bounce
> and cann't reach him by telephone either. Is he still in business ? and
> does anyone have a telephone number or e-mail address
> Phil
Mike retired a few years ago and his son Jim took over. The web site

is: www.agtannenbaum.com
address: AG Tanenaum
PO box 386
Ambler, PA 19002
Phone: 215.657.0106
Fax: 215.657.0520

I got a manual from Jim last year and it was an excellent copy;
the item was a Weston multi-meter in a beautiful wooden box.
Unfortunately, it turned out to have a dead meter movement!

If you talk with Jim, give him regards from "Professor Larky"
Art K3HBA

From: AA5QT@aol.com
Message-ID: <380.cc84b37.323d7d22@aol.com>
Date: Sat, 16 Sep 2006 12:15:30 EDT
Subject: Power Supply Problem
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----1158423330"

-----1158423330
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

This may seem silly, but I've a problem with my Collins power supply. The 5R4 flashes internally, and the supply fuse blows. I've tried several NOS 5R4's with the same result. I've disconnected the choke input filter, so there's nothing (no choke, no caps) connected to the tube - same result. Any insights?

Gary K5QT

-----1158423330
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *
* Mail Lists at theporch.com only accept PLAIN TEXT *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *

-----1158423330--

Mime-Version: 1.0
Message-Id: <p06230906c13296b46e3e@[192.168.1.2]>
Date: Sat, 16 Sep 2006 23:07:59 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Scott Robinson <spr@earthlink.net>
Subject: Re: Power Supply Problem
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

Hi Gary,

You may have a carbon track on the tube socket.

/scott

At 12:15 PM -0400 9/16/06, AA5QT@aol.com wrote:

>This may seem silly, but I've a problem with my Collins power supply. The
>5R4 flashes internally, and the supply fuse blows. I've tried several NOS
>5R4's with the same result. I've disconnected the choke input filter, so
>there's nothing (no choke, no caps) connected to the tube - same result. Any
>insights?
>
>Gary K5QT

Message-ID: <01e701c6da25\$5d3ece00\$640fa8c0@radioroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Sun, 17 Sep 2006 02:48:55 -0400
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=response
Content-Transfer-Encoding: 7bit

> You may have a carbon track on the tube socket.

...or a filament winding that is arcing or shorted to
another winding or to ground.

73 Tom

Message-ID: <450D57D4.7060700@comcast.net>
Date: Sun, 17 Sep 2006 08:12:36 -0600
From: "Herbert M. Rosenthal" <herbrose@comcast.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

It's a stretch, but you may have a partially shorted transformer primary winding; this would change the turns ratio and raise the secondary voltage to the 5R4 above its peak voltage rating. Suggest you measure the ac plate voltage with the 5R4 removed.

If there are shorted turns, thus would account for excessive primary current which would blow the fuse, with no tube in the socket.

But then again, the carbon tracks could do it, too, but wouldn't they also arc?

Herb W5AN
Albuquerque

Content-Disposition: inline
Content-Transfer-Encoding: binary
Mime-Version: 1.0
From: <jsehrring@siouxvalley.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Heath kit building
Content-Type: text/plain
Message-Id: <20060917170325.6732212601C@filter1.e-filtering.net>
Date: Sun, 17 Sep 2006 11:03:25 -0600 (MDT)

I've read here about folks finding an unbuilt Heathkit. The questions have been things like, "To build or not build, that is the question," (with apologies to the great Bard). Never thought I'd find such a thing, but...

I bought a Heath SB-610 Monitor Scope at a hamfest a year ago, don't even remember where, for a very modest price. I recently looked at it closely for the first time. It's in fine shape, build quality is excellent.

But what's this that came with it, a small box of spare parts?

Turns out that whoever built it didn't fully finish the job. Yes, it currently does its main function, to look at transmitter waveform envelopes. But it can also be connected to a receiver's IF stage to look at received waveform envelopes

as well. The latter's the portion of the unit not finished, hence the extra parts. (It does this function with some limitations due to finiteness of IF bandwidths. No, the SB-610 is not a spectrum analyzer--the Heath SB-620 Scanalyzer [I have one of those too] does that)

I'll just pick the RX IF frequency I want. Then I'll have the pleasure of topping off the job. Been decades since I "Heathkitted." Way cool!

--John, WB0EQ/VE6

From: wb3fau@att.net
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Sun, 17 Sep 2006 17:44:39 +0000
Message-Id:
<091720061744.22488.450D8984000B2FF0000057D821603760219A0E00CC0D99@att.net>

I am leaning towards a transformer problem. Heres another thought- what type of fuse are you using? Should be slow blow type. What value is supposed to be there? Try a slightly larger amperage value. Russ.

From: "stanleybadams" <stanleybadams@yahoo.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Repro Military Stamped Label Plates
Date: Sun, 17 Sep 2006 16:38:03 -0500
Message-ID: <000801c6daa1\$8eb9f820\$6001a8c0@stan>
MIME-Version: 1.0
Content-Type: text/plain;
charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Does anyone make repro military stamped label plates with the Contract #, manufacturer, etc?

Thanks

Stanley Adams
Memphis

Message-ID: <003d01c6dab2\$d851a120\$0502a8c0@Belkin>
From: "Brian A Clarke" <brianclarke01@optusnet.com.au>

To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Mon, 18 Sep 2006 09:41:47 +1000
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Herbert, Tom, et al

If there were a partially shorted primary, the main effect would be not enough primary inductance, hence increased magnetising current, especially bad if the shorting got you to core saturation. Core saturation, if bad enough, will pull the fuse in the primary circuit.

As most transformer manufacturers do not allow for a wide margin of mains voltage rise, you would not get a sufficiently raised secondary voltage to give rise to arcing.

My money is on a breakdown of transformer insulation between the 5 V winding and the primary - or the laminations - this latter is much less likely, unless the transformer is rather old [before modern epoxy varnishes] has had a drink and is not fully dried out; then the wetted paper starts conducting and gets carbonised --> carbon tracks.

However, while musing at the keyboard, another hypothesis sprang to mind - a car's ignition coil [Kettering style] relies on the sudden change of current in the primary [as the points open] to generate a large primary voltage - $V_p = -L \, di/dt$; and in this case, if you are getting core saturation, when the mains swings downwards from core saturation, there will be a suddenly quite high di/dt . So, your transformer could be acting like an induction coil. Use a CRO to see if this is the cause - run at lower voltage on a Variac, gradually increase till the arcing starts.

73 de Brian, VK2GCE.

Message-ID: <02a701c6dab5\$5ac6edc0\$640fa8c0@radiatoroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Sun, 17 Sep 2006 19:59:35 -0400
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=original

Content-Transfer-Encoding: 7bit

- > If there were a partially shorted primary, the main effect
- > would be
- > not enough primary inductance, hence increased magnetising
- > current,
- > especially bad if the shorting got you to core saturation.
- > Core
- > saturation, if bad enough, will pull the fuse in the
- > primary circuit.

...and make lots of smoke. Unless the transformer is blowing serious stink, it probably does not have a few shorted turns.

- > As most transformer manufacturers do not allow for a wide
- > margin of
- > mains voltage rise, you would not get a sufficiently
- > raised secondary
- > voltage to give rise to arcing.

Aside from the smell of hot winding and paper, the core would also saturate...thus limiting voltage.

- > My money is on a breakdown of transformer insulation
- > between the
- > 5 V winding and the primary - or the laminations -

If it is a transformer problem, this is the only logical event.

My bet is on a 5V to some other winding or core short. That problem often will only be found by actually high-potting the 5V winding in the transformer.

The socket is another plausible failure mode. Nothing else besides those two seems likely.

The nice thing is either the socket or the 5V winding is easily fixed. I'd just leave the tubes in there for looks and use two or three 1000V diodes in series for each half of the tube to the choke on a separate terminal block or board. No one would ever know.

73 Tom

Date: Sun, 17 Sep 2006 21:21:58 -0400

From: "Edward J White" <wa3bzt@verizon.net>
Subject: Re: Heath kit building
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <00a901c6dac0\$d86ac610\$6401a8c0@wa3bzt>
MIME-version: 1.0
Content-type: multipart/alternative;
boundary="-----=_NextPart_000_00A6_01C6DA9F.4EC4BF90"

This is a multi-part message in MIME format.

-----=_NextPart_000_00A6_01C6DA9F.4EC4BF90
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Hi Gang:

Check the manual. The spare parts might be for a different IF frequency. =
I built a SB-620 I think and it had extra parts for other IF =
Frequencies.

Ed
WA3BZT

----- Original Message -----=20
From: jsehring@siouxvalley.net=20
To: Old Tube Radios=20
Sent: Sunday, September 17, 2006 1:03 PM
Subject: Heath kit building

I've read here about folks finding an unbuilt Heathkit. The questions =
have been
things like, "To build or not build, that is the question," (with =
apologies to
the great Bard). Never thought I'd find such a thing, but...

I bought a Heath SB-610 Monitor Scope at a hamfest a year ago, don't =
even
remember where, for a very modest price. I recently looked at it =
closely for the
first time. It's in fine shape, build quality is excellent. =20

But what's this that came with it, a small box of spare parts?

Turns out that whoever built it didn't fully finish the job. Yes, it =
currently
does its main function, to look at transmitter waveform envelopes. =
But it can
also be connected to a receiver's IF stage to look at received =

waveform envelopes

as well. The latter's the portion of the unit not finished, hence =
the extra

parts. (It does this function with some limitations due to finiteness =
of IF

bandwidths. No, the SB-610 is not a spectrum analyzer--the Heath =
SB-620

Scanalyzer [I have one of those too] does that)

I'll just pick the RX IF frequency I want. Then I'll have the =
pleasure of

topping off the job. Been decades since I "Heathkitted." Way cool!

--John, WB0EQ/VE6

-----=_NextPart_000_00A6_01C6DA9F.4EC4BF90

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
* (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

-----=_NextPart_000_00A6_01C6DA9F.4EC4BF90--

Message-ID: <20060918014246.57405.qmail@web34604.mail.mud.yahoo.com>

Date: Sun, 17 Sep 2006 18:42:46 -0700 (PDT)

From: Jerry Proc <jerry7proc@yahoo.com>

Subject: AN/UYK-3 Computer - Research Successful

To: Old Tube Radios <boatanchors@theporch.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=iso-8859-1

Content-Transfer-Encoding: 8bit

Hello Everyone,

Some time ago, I posted a request for assistance on
the AN/UYK-3 computer on this list.

I am happy to report that I've been successful in

digging up some information on it and writing a short story.

Wanting to know more about this machine and its commercial equivalency, I exhaustively searched the web but couldn't pull anything much on it. Eventually I Googled my way into an archive locator at the Charles Babbage Institute, University of Minnesota. This provided a key clue. The computer was made by Bunker Ramo, a company whose name was familiar to me when I first got into the computer and communications business in 1970. Little did I know that I would be researching this company some 36 years later!

Trying to piece together the big picture behind the Bunker Ramo name based on data found solely on the web was beyond challenging. There was both information, misinformation and errors to analyze. I was about to give up on it when CTIRC Donald J. Wagner, USN (Ret.) came to my rescue and saved the day. Without Don's knowledge of the American military-industrial complex, there would be no story behind the story.

For those who are interested, the results of the research can be found at:

<http://www.jproc.ca/irp/uyk3.html>

So that's the story of how the story behind the story was developed :-)

--

Regards,
Jerry Proc
E-mail: jerry7proc@yahoo.com

Do You Yahoo!?

Tired of spam? Yahoo! Mail has the best spam protection around
<http://mail.yahoo.com>

Message-ID: <002501c6dac9\$04e3fdd0\$43e47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem

Date: Sun, 17 Sep 2006 19:06:34 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Oh, but a chance to nit-pic! I don't think a shorted turn is so likely to lead to "core saturation" as to a large consumption of power in the additional load, i.e. the shorted turns acting as a secondary and its resistance determining the load added. The magnetic energy, instead of being stored in the core, would be consumed by the added load, perhaps enough power consumed to increase primary current to beyond the fuse rating. Also known as the "Big Bang" theory. ;-)

Arden Allen
KB6NAX

Message-ID: <002601c6dac9\$05be7f50\$43e47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Sun, 17 Sep 2006 19:20:25 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>I'd just leave the tubes in there for looks
> and use two or three 1000V diodes in series for each half of
> the tube to the choke on a separate terminal block or board.
> No one would ever know.

The input electrolytic capacitor would know. Good way to end its life. Also, considerably higher under load B+ would result which may overstress something downstream. Willy-nilly replacing a rectifier tube with silicon diodes introduces a new set of problems.

Concidentally, In higher powered high vacuum rectifier circuits it's good practice to allow the rectifier to cool down a bit before reapplying power. About a minute to be safe. A still hot rectifier cathode in a 5U4 or 5R4, for instance, will be temporarily overloaded while trying to recharge the power supply filter caps if power is interrupted for about five or ten seconds. A cathode-anode arc might occur which is highly damaging to the oxide coated cathode.

Arden Allen

KB6NAX

Date: Mon, 18 Sep 2006 08:40:22 -0400
From: Rhett George <rtg@ee.duke.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Message-ID: <20060918124022.GA705@ee.duke.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

- Greetings -

May we nit-pic a bit more? Rectifiers such as 5U4 and 5R4 do not have indirectly heated cathodes.

This does raise a question as to whether the 5U4 or the 5R4 is the correct rectifier for the power supply. The 5R4 has a higher PIV rating.

My two plates worth.

73 Rhett - KE4HIH

Message-ID: <000e01c6db48\$31f55dd0\$6be47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Mon, 18 Sep 2006 10:30:47 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> May we nit-pic a bit more? Rectifiers such as 5U4 and 5R4 do not
> have indirectly heated cathodes.

Who said the 5U4 and 5R4 had indirectly heated cathodes? A cathode is a cathode whether of the filamentary type or indirectly heated sleeve type.
>From my magic dictionary:

1. A negatively charged electrode, as of an electrolytic cell, a storage battery, or an electron tube.
2. The positively charged terminal of a primary cell or a storage battery that is supplying current.

How's that for a full plate?? ; -)

Arden Allen
KB6NAX

Date: Mon, 18 Sep 2006 13:56:10 -0400
From: "Rhett T. George" <rtg@ee.duke.edu>
Message-Id: <200609181756.k8IHuAum008018@atlantic.ee.duke.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Rectifiers (was: power supply)

- Arden -

Thank you for the elucidation. Don't know the author of your magic dictionary, but you and Max Knoll are in absolute agreement. Regret lowering the SNR here.

73

Rhett - KE4HIH

From: wb3fau@att.net
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Arden Allen" <gumbear@pacbell.net>
Subject: Re: Power Supply Problem
Date: Mon, 18 Sep 2006 18:25:30 +0000
Message-Id:
<091820061825.26531.450EE498000CA0F6000067A321603763169A0E00CC0D99@att.net>

Hey now- lets keep it simple- heres an easy way to find the short- replace the fuse with a piece of copper tubing and apply power. Surely, the short will show itself readily. RD.

From: ail0@att.net
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Mon, 18 Sep 2006 21:58:11 +0000
Message-Id:
<091820062158.20765.450F1672000BB3910000511D2160376316CF04070E@att.net>

----- Original message -----
From: wb3fau@att.net
>

> Hey now- lets keep it simple- heres an easy way to find the short- replace
> the fuse with
> a piece of copper tubing and apply power. Surely, the short will show itself
> readily. RD.

Great Idea! Have one of your enemies (if any of them are left alive) hold the chassis and lean on a water pipe while you use an insulated tool to turn on the power switch.

I'm familiar with a case where someone replaced the fuses in a hand tool with copper wire. The fuses were blowing because of a line-to-case short protected by a three prong line cord. This same person broke the ground pin from the cord; put in the the copper jumpers and the thing worked without blowing fuses! The next user touched a radiator on a very hot, sweaty day, unfortunately, he ain't with us any more!

Art

Message-ID: <BAY110-DAV17F776194077A7EDA93058A02D0@phx.gbl>
From: "JAMES HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: NC303 question
Date: Mon, 18 Sep 2006 17:29:55 -0600
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----_NextPart_000_686B_01C6DB48.0EE932D0"

This is a multi-part message in MIME format.

-----=_NextPart_000_686B_01C6DB48.0EE932D0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

To what frequency should the 20 meter image trap in the NC303 be tuned? =
(It's L18, C86 in my schematic and it's on the 20 meter position of =
S1F.) I can figure where the image would be if I knew whether the Local =
Oscillator was on the high side or the low side of the received =
frequency. If the L0 is below the received frequency, the image would =
be, for example, at 14.2 minus twice times the IF of 2.215 or 9.770 mHz. =
If the L0 is above, the image would be 14.2 plus twice 2.215 or 18.63 =
mHz. I suppose I could just listen with a general coverage receiver and =
see where the L0 is, but I thought I would ask the group to see if =
anyone knows the answer.

Thanks,

Jim, W8KGI

-----=_NextPart_000_686B_01C6DB48.0EE932D0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

-----=_NextPart_000_686B_01C6DB48.0EE932D0--

Message-ID: <2488.24.98.51.191.1158622040.squirrel@fracas.netboobie.org>
Date: Mon, 18 Sep 2006 19:27:20 -0400 (EDT)
Subject: Re: Power Supply Problem
From: "Marty Reynolds' debris field" <polepeeg@aaa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Old Tube Radios" <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit

cheeezis this has persisted!

yust pigtail a 100W blub across the fuze holder & go in with the VOM
& find the bug

I had the 5V wdg in a gonset supply short to one end of the HV sec'y.
Stolid stated her I did & she's running contentedly

Note I submitted this for extra CX credit.

'rm

Message-ID: <2908.24.98.51.191.1158622257.squirrel@fracas.netboobie.org>
Date: Mon, 18 Sep 2006 19:30:57 -0400 (EDT)
Subject: scr522 vs T-1196 'n stuff
From: "Marty Reynolds' debris field" <polepeeg@aaa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit

rumor has it three brit critters were the precursor to the SCR-522 set

we had so much fun with on 2 a half century back (i still love to murder 'em)

The brit rx mighta been the T-1196. Any help?

'rm

Message-ID: <01c001c6db79\$36f10a10\$640fa8c0@radiatoroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Power Supply Problem
Date: Mon, 18 Sep 2006 19:20:32 -0400
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=original
Content-Transfer-Encoding: 7bit

> Great Idea! Have one of your enemies (if any of them are
> left alive) hold the chassis and lean on a water pipe
> while you use an insulated tool to turn on the
> power switch.

We sure know how to milk a problem out!

Lacking a HV breakdown tester, I'd slap some solid state rectifiers in the supply and unhook the filament winding and see what happens with a normal fuse. NOTHING will explode that isn't already weak because as part of the normal warm-up cycle the caps should be able to handle the 1.414 times RMS on each side of center tap just fine.

The extra drop of a high vacuum rectifier is caused by a "plate resistance" in the tube of perhaps 20-40 ohms per diode in a medium size high vacuum rectifier. In a capacitor input supply, when the rest of the tubes are cold, the voltage already approaches 1.4 times the RMS unloaded voltage in a supply. What mostly happens with a change to solid state rectifiers is the full current voltage decreases.

If the supply is choke input the meaning of that 20-40 ohms pales significantly. I suppose the more worry-warted among us would add a 20-40 ohm resistor, which would not reduce the initial starting voltage very much but would help make the half-load to full load regulation fall apart.

For example RCA's tube manual for a 5V4 shows the tube in capacitor input supplies about 1.2 times RMS of 375 volts per plate at half rated load, dropping to 1.1 times RMS at full current. Of course at a 20mA bleeder load, while the indirectly heated tubes are all warming up, voltage is almost 1.4 times RMS. This is capacitor input.

With choke input the change is significantly less from bleeder load to full load.

73 Tom

End of BOATANCHORS Digest 3956
